



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/456,340	12/08/99	TANAKA	005702-20051

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MMC2/0418

EXAMINER

LE, T

ART UNIT

PAPER NUMBER

2818

DATE MAILED:

04/18/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/456,340

Applicant(s)

TANAKA, TOMOHARU

Examiner

Thong Q. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☒ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 17) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

1. Pre-amendment filed on March 21, 2000 has been entered.
2. Claim 3 has been canceled.

Claims 1-2, 4-22 are presented for examination.

### ***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in 09/456,340 on December 08, 1999. It is noted, however, that applicant has not filed a certified copy of the Japan 10-351435 12/10/98 application as required by 35 U.S.C. 119(b).

### ***Information Disclosure Statement***

4. This office acknowledges receipt of the following items from the Applicant:  
Information Disclosure Statement (IDS) filed on March 21, 2000.
5. Information disclosed and list on PTO 1449 was considered.

### ***Drawings***

6. The drawings are objected to because in Figures 1 and 6, change label "**FLUSH MEMORY**" to **FLASH MEMORY** as described in specification. Correction is required.

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### ***Specification***

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in **the specification and the claim.**

### ***Claim Objections***

8. Regarding claims 1-2, line 3, change "the data" to --a data--.

9. Claim 19 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 4. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 18-19 are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon **predetermined number**. The claim does

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not teach what is predetermined number. Need to amend claim make claim more clearly.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1,2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Line 3-4, claim discloses "each having a plurality of flash memory cells..". However, claim does not teach "each" indicated for "memory units" or "group". Need to amend claim, making claim more clearly.

b. Line 12, "**said checking step**" is indefinite.

14. Regarding claim 2, line 11, "said checking step" is indefinite.

15. Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to  $(1 \leq m \leq n)$ , the number of n is not defined . Need to amend claim make claim more clearly.

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***Claim Rejections - 35 USC § 102***

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1-2, 4-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Harari et al. (U.S. Patent No. 5,504,760).

A flash memory system (ABSTRACT) comprising:

a group of memory units (Figure 4), each having a plurality of flash memory cells adapted to erasing data therefrom and writing data therein (Column 1, lines 25-31) ; a error detection/correction unit (Figure 13b, 625) for reading the data written in the group of memory unit and detecting/correcting errors up to a predetermined number (Column 20, lines 51-67) ; an error judgement section for counting the number of errors detected (Column 21, lines 46-48) by the error detection/correction unit and determining the completion of proper data modification of data provided that the number of errors detected by the error detection/correction unit is not greater than the predetermined number as claims 4, 7-8,18-19. More specifically, Harari et al. discloses memory cluster, and at least one or more than one memory sectors constituting the memory cluster (Column 17, lines 9-12), and a flash memory control unit (Figure 2, 63, Column 21, lines 60-61) as claims 5-6,9,10-17 disclose; and a function of checking for the present

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or absence of an error (Column 21, lines 62-65) of not properly modifying the data of the group of memory units and determining the completion of proper modification of the data of the group of memory units provided that an error is detected and the error can be corrected (Column 19, lines 51-57) as claim 20-22 disclose.

Regarding claims 1-2, the apparatus discussed above would perform the claims of method 1-2. Furthermore, Harari et al. discloses method of controlling a flash memory system (Column 21, lines 23+) as claims 1-2 disclose.

### ***Conclusion***

18. The present invention is very similarly with Harari et al. (U.S. Patent No. 5,396,468).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 703-306-9123. The examiner can normally be reached on 8:00am-5:00pm M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on 703-308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3329.

• Application/Control Number: 09/456,340

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Thong Q. Le *TL*  
Examiner  
Art Unit 2818

  
David Nelms  
Supervisory Patent Examiner  
Technology Center 2800

April 8, 2000